NATIONAL SECURITY COUNCIL
WASHINGTON, D.C. 20506

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August 8, 1977

MEMORANDUM FOR:

The Secretary of State
The Secretary of Defense

ALSO: The Director, Arms Control and Disarmament Agency
The Chairman, Joint Chiefs of Staff
The Director of Central Intelligence

SUBJECT: Test Launch Notification

The attached paper is forwarded for your information. It will be discussed at a Special Coordination Committee meeting, along with SALT issues, to be scheduled this month. We will notify you as soon as possible of the meeting date.

Christine Dodson
Staff Secretary

(CENTRAL REGISTRY FILE NSC)

cc: The Administrator, National Aeronautics and Space Administration

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A PAPER ON

TEST LAUNCH NOTIFICATION

July 29, 1977

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TEST LAUNCH NOTIFICATION

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Introduction

During the March 1977 talks in Moscow, the U.S. proposed, and the Soviets agreed, to initiate discussions on prior notification of any kind of intercontinental ballistic missile launch in a test phase. It was subsequently agreed to initiate these discussions in the SALT negotiations and then to refer this matter to the Standing Consultative Commission (SCC) for the purpose of working out the specific notification procedures.

This paper describes the President's initiative on test launch notification, the history of related measures, and possible U.S. and Soviet approaches and objectives in the SCC discussions. It then presents the issues that require decision in preparing a U.S. position for these discussions.

Existing U.S./Soviet Agreements

The U.S. and USSR currently provide prior warning of missile and space launches that result in impacts in ocean areas and may cause hazards to navigation. The general requirement for such warnings derives from Article 2 of the Law of the Sea Convention on the High Seas (Geneva, 1958). More specifically, in the case of the U.S. and USSR, advance warnings are called for under the bilateral Agreement on Prevention of Incidents On and Over the High Seas of 1972. Article VI of this agreement contains the provision that the U.S. and USSR shall "Provide through the established system of radio broadcasts of information and warnings to mariners, not less than three to five days in advance as a rule, notifications of actions on the high seas which represent a danger to navigation or to aircraft in flight."*

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* Under the articles cited above, U.S. notices of missile tests and space launches are typically broadcast one week or more prior to launch, and specify a launch window of 4-6 hours on a specific day. Exceptions to this are notices of operational SLBM tests and military space surveillance launches. In the interest of national security, notices of these launches are published only 24 hours in advance of the test and, in the case of SLBM tests, they include only a broad definition of the impact areas of various missile elements.

Both countries also provide to the United Nations basic orbital information on all space launches after they occur. Finally, the 1971 Agreement on Measures to Reduce the Risk of Nuclear War requires each country to provide notification in advance of "any planned missile launches if such launches will extend beyond its national territory in the direction of the other party." To date, no notification has been provided specifically under this Agreement.

U.S. and Soviet Launch Practices

There are important asymmetries in U.S. and Soviet missile test and space launch practices. While virtually all U.S. ICBM and SLBM tests are to the open ocean, and thus require prior notice for range safety purposes, this has been true for only 5-10% of Soviet ICBM tests and about 55% of Soviet SLBM launches. Essentially no Soviet space launch activity is subject to prior notice, while all orbital U.S. space launches necessitate such notice.

All missile tests and space launches by the U.S. extend beyond U.S. territory. However, all these launches avoid azimuths "in the direction of" the Soviet Union. Relatively few Soviet missile tests extend beyond Soviet territory.

The schedule of U.S. ICBM launches is unclassified and the Soviets can readily obtain this information well in advance. Yet the U.S. has little, if any, advance warning of some Soviet ICBM tests, notably those conducted from operational ICBM silos (the U.S. does not conduct such tests). Since U.S. warning systems cannot initially distinguish test launches from actual operational launches of ICBMs under these circumstances, such launches represent a potential source of uncertainty that could be significant in a crisis or if our warning systems malfunction.

U.S. Objectives of This Initiative

The U.S. objectives of this initiative are to increase the scope of information exchange and confidence building measures between the two sides. The format chosen would be an extension of previous U.S./Soviet agreements on reducing the risks of nuclear war.

Primary Issue for Decision - Scope of U.S. Program

The primary issue for decision is the desired scope of the U.S. proposal, i.e., whether the U.S. position should

limit itself to ICBM test launch notification or should include notification of launches of other vehicles - specifically, space vehicles and SLBMs. Some believe that the U.S. objectives of increasing the amount of information exchange, promoting confidence building measures and in general, breaking down habits of secrecy and distrust would be better served by the inclusion of space and/or SLBM launches as well as ICBM launches. They feel that the notification procedures can be sufficiently generalized so as to protect U.S. national security interests. Others disagree and hold that inclusion of SLBM and space launches in this initiative is inconsistent with the security requirements of U.S. space surveillance and strategic deterrent forces. The principal arguments for and against including each of the categories of missile launches in the U.S. proposal are outlined below in a pro/con format.

ICBMs

-- All agency representatives agree that the U.S. proposal should include the requirement for prior notification of all ICBM test launches.

Space launches

Pros

-- Hedges against the possibility that space launches could be, and sometimes are for a period of several minutes, indistinguishable from ICBM test launches.

-- Would reduce potential disagreements as to whether notification should have been given for a specific launch.

-- Provides an additional opportunity to assess a pending launch in the context of a possible threat to satellites of the other side.

Cons

-- Sufficiently detailed notification of space launches will degrade U.S. space surveillance capability. The JCS and OSD representatives believe that the risks associated with prior notification of space launches remain great enough that any additional

notification beyond that presently required or any discussion of such notification with the Soviets is imprudent.

-- The U.S. could very well find itself under pressure to include more detail in the notification process than dictated by either prudence or current practice. This situation could result in the degradation of the U.S. space surveillance capability.

-- Including space launches in this initiative would result in the inclusion of space systems which are not currently part of the SALT forum.

SLBM Launches

Pros

-- ACDA and State representatives believe including notification of SLBM launches would constitute a more balanced proposal. They base this on the fact that due to U.S. test practices the Soviets currently receive prior notification of essentially all U.S. ICBM launches under existing agreements,* and therefore would have little to gain from an initiative including only ICBM launches. The opposite is not true for the U.S. since Soviet test practices seldom require that advance warnings of their ICBM tests be given. However, under this agreement, OSD and JCS representatives believe, that for reasons of geographic and technological asymmetries, such a proposal would give the USSR substantially greater benefits in the SLBM area than it would give the U.S. in the ICBM area.

-- Prior notification of SLBM launches from operational launch tubes could reduce misperceptions and contribute to reduced risk of accidental war.

-- Including SLBM test launch notification along with ICBMs would embrace the relevant missile systems covered under SALT.

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* U.S./Soviet Agreement on Prevention of Incidents On and Over the High Seas (1972) and a Protocol to that Agreement (1973) -- hereinafter referred to as the "Incidents Agreement."

Cons

-- OSD and JCS representatives believe that no conceivable political benefit could compensate for the potential increased risk to survivability of SSBN forces. They believe such risk is inherent in discussing this matter with the Soviets. State and ACDA representatives believe that SSBN survivability would not be affected by a generalized notification that did not go beyond the information the U.S. is already providing (i.e., 24-hour notification of broad impact areas of SLBM missile elements).

-- The U.S. could very well find itself under pressure in the negotiating process to make the notification of SLBM test launches more specific than is presently the case. More detailed notification would clearly be of advantage to Soviet ASW forces and constitute unacceptable risk to U.S. strategic deterrence.

-- Formalizing the prior notification procedure beyond the scope of ICBMs could tend to limit U.S. flexibility in cancelling SLBM launches under conditions of launch site encroachment by Soviet naval vessels.

-- It could unnecessarily complicate the negotiations of prior notification of ICBM launches by raising sensitive security issues that the Soviets might not be willing to address.

The ACDA representative favors the inclusion of all three missile systems in the proposal for the following reasons:

-- It would constitute a straight-forward notification of all long-range launches, which formalizes the exchange of information which for the most part is already available to both sides by other agreements or by National Technical Means.

-- It would minimize potential disagreements on both sides as to whether notification should have been given for a specific launch.

-- It would be a broad agreement covering general confidence building information (e.g., period

in advance of launch, launch window, general area of location of launch and impact) and therefore may be easier to negotiate than a more restrictive agreement calling for more detailed information.

-- It would create no additional security risks to the U.S. since the U.S. is already providing at least 24 hour prior notification of essentially all U.S. ICBM, SLBM and space launches under the "Incidents Agreement."

-- The inclusion of SLBM launches would make a more balanced proposal since the U.S. is primarily interested in Soviet ICBM launches while the Soviet Union may have greater interest in U.S. SLBM launches.

OSD and JCS representatives favor limiting this initiative to prior notification of ICBM test launches for the following reasons.

-- While it is recognized that the proposal of including space and SLBM launch notification envisions providing no more information than is presently provided in notices of hazards to navigation, the importance of space surveillance systems and strategic deterrent forces to U.S. national security is such that there can be no compensating political benefit for any potential increase in risk to these systems. Such risks would increase substantially by exchange of any but the most general information, either in the negotiating process or as a result of it.

-- The U.S. presently enjoys significant geographic and technological advantages which would be jeopardized by the inclusion of SLBM launch notification in this initiative. Such a package would be heavily imbalanced in the favor of the USSR.

-- On the other hand, the objectives of building confidence and increasing channels of communication would be better served by more specific and substantive prior notification of ICBM launches which could be provided without undue risk to surveillance or deterrent forces.

-- Furthermore, such an initiative would be more negotiable than a more comprehensive proposal

because it would be simple and would apply equally to both sides while not imposing unacceptable risks to either side.

Secondary Issues for Decision - Details of ICBM Notification

It is recognized that the degree of specificity sought will necessarily depend on the types of systems to be included in the proposed agreement. Therefore, a comprehensive analysis of the secondary issues pertaining to the details of the notification process must be held in abeyance until the primary issue of proposal scope is resolved. In any event, it is believed that a discussion of these secondary issues as they pertain only to ICBM notification may prove helpful in formulating a basis for resolving the broader issue of which missile systems should be included in the U.S. proposal.

Secondary issues requiring decision with respect to ICBM notification are as follows:

Type of Launch. There is a general consensus that the U.S. proposal should include launches of all ICBMs independent of whether they; (1) are operational or development tests, (2) originate from test facilities or operational silos, (3) remain within or extend beyond national territory or are in the direction of the other side. However, the Soviets may resist this proposal on the grounds that Soviet missile tests confined to internal test ranges are readily detectable by NTM and are in a direction that poses no direct threat to the U.S. homeland. They may further cite the U.S. negotiating record on the Agreement on Measures as a precedent for this position.* They may also argue that the main interest of the U.S. is to enhance intelligence gathering activities.

In the event the U.S. cannot obtain agreement on notification of all ICBM launches the possibility of including only launches from operational silos or beyond national territory might be considered. Such an alternative, although less desirable, would be equitable in view of current U.S. and Soviet test practices.

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* In response to a Soviet proposal for notification of missile launches extending beyond national territory and notification of massed takeoffs of aircraft from forward-based airfields and carriers, the U.S. argued it could only accept notification of missile launches that extend both beyond national territory and in the direction of the other party.

Launch Window. The main issue here is whether the U.S. should seek relatively precise (4-6 hrs.) or imprecise (days or weeks) notification of the intended time of launch. Precise notification (4-6 hrs.) would provide clear identification of individual launches for warning purposes and would provide adequate flexibility for launch operations on a given day. However, such notification may be objectionable to the USSR for intelligence reasons. Imprecise notification of launch window would reflect current Soviet practice and would provide maximum flexibility in launch operations. On the other hand, a launch window extending longer than a day or two would reduce the benefits of prior notification.

Period in Advance of Launch. The basic issue is whether notification should be given well before the intended launch time or in close proximity to the launch. Three alternatives are possible:

-- Period Well in Advance of Launch (2-3 Weeks). Has the advantages that it corresponds to current Soviet practice for launches extending beyond Soviet territory, provides a greater opportunity to clarify or protest notified tests, and makes the testing of missiles for political purposes (i.e., show of force) more difficult. On the negative side, it would cause significant inconvenience and cost in the event the launch window was missed since it would necessitate a 2-3 week rescheduling delay in testing to satisfy notification requirements.

-- Period in Close Proximity to the Launch (24-48 Hours). This period would imply precise launch window of 4-6 hours. The primary advantage of this option is that it minimizes the necessity of cancellation of scheduled launches and reduces rescheduling delays.

-- Two-Three Weeks or 24-48 Hours with a Special 12 Hour Notification Provision. If a narrow launch window is assumed under (1) or (2), the problem of rescheduling delays could be essentially eliminated by including a provision to permit special notification only 12 hours in advance of the rescheduled launch. The main disadvantage is that such a provision would constitute an added notification burden.

A period in close proximity to the launch (24-48 hours) with special 12-hour notification would be the preferred alternative.

Location of Launch. The issue is whether the U.S. should argue for inclusion of the general launch location or for specific launch coordinates. The Soviets are likely to be very sensitive to providing specific launch site data. Since this level of detail is unimportant, it is recommended that the U.S. press for general location only (e.g., name of test area or operational launch complex).

Intended Impact Area. The question is whether the U.S. should insist on notification of intended impact area and if so, to what level of detail. Knowledge of the impact area would provide important additional information when coupled with general launch location (i.e., direction of launch and whether or not launch will extend beyond national territory). Since the detailed location of the impact area is not necessary to ascertain this information and the Soviets would undoubtedly be reluctant to provide such detail -- it is believed the U.S. should press for impact areas given in general terms (e.g., Kwajalein, Kamchatka, etc.)

Additional Launch Information. The issue is whether the U.S. should seek additional information such as direction and purpose of launch and type of launch vehicle. Although such information would be useful, it is not essential and proposing it may arouse Soviet suspicions and harm overall U.S. objectives. However, any Soviet willingness to explore such matters should be encouraged.

Over-Notification. Although it would be difficult to verify, it is recommended that the agreement contain language prohibiting notification where a launch is not intended. In doing this some provision must be made to allow for legitimate rescheduling (U.S. currently reschedules 35% of its scheduled launches). Even though it may have some drawbacks, such a provision may have a restraining influence on the Soviets and preclude their demonstrated propensity for over-notification.*

Type and Channel of Notification. The issue for decision is whether the U.S. should seek such notification

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* The Soviets currently over-notify Turkey of their intent to navigate the Dardanelles and Bosporus Straits under the Montreux Convention.

in a public or private form and, if private, whether through regular diplomatic channels or through a special channel. It is recommended that regular diplomatic channels be used with a special arrangement to ensure timely transmission and routing, particularly under the 12-hour rescheduling option.

TEST LAUNCH NOTIFICATION

I. PURPOSE

This paper identifies and analyzes the issues that need to be resolved in developing a U.S. position on prior notification of missile test launches. The paper provides a broad basis for structuring initial discussions with the Soviets in the SALT forum and contains adequate detail to support follow-on discussions which may carry-over into the Standing Consultative Commission (SCC).

II. BACKGROUND

A. The President's Initiative. At his press conference of 8 February 1977, the President announced that he had suggested to the Soviet Union that it might be desirable to have mutual prior notification of the launch of "any kind of intercontinental ballistic missile in a test phase." The President pointed out that while the U.S. tests ICBMs from Vandenberg Air Force Base, the Soviets sometimes conduct tests from operational ICBM silos, and said that "a prior notice that this launch was going to take place - 24 hours or 48 hours - would help a great deal."

The subject of test launch notification was placed on the agenda of the Moscow talks, and agreement was reached at that time to initiate detailed discussions on this topic. The Soviet reaction was that the Soviet Union already provided notification of launches beyond Soviet territory, and that while it was not necessary in general to notify of launches within Soviet territory, the Soviet Union would be willing to discuss possible notification of such launches on an individual basis. It has been been agreed to initiate discussions of this matter in the SALT forum and, if necessary, to work out the details of the notification procedure within the SCC.

B. History of Related Measures. The President's proposal regarding test launch notification may be seen as an extension of previous U.S./Soviet efforts to reduce the risks of nuclear war arising through accident and miscalculation, to remove causes of unnecessary tensions, and to build mutual confidence.

The U.S. and the USSR currently provide advance warning for purposes of range safety, of missile launches that impact in broad ocean areas. The general requirement for

such warnings derives from Article 2 of the Law of the Sea Convention on the High Seas (Geneva, 1958), and more specifically under the U.S./Soviet Agreement on Prevention of Incidents On and Over the High Seas (1972) and a Protocol to that Agreement (1973). Under this Agreement and the associated protocol, both sides are obliged to "provide through the established system of radio broadcasts of information and warning to mariners, not less than three to five days in advance as a rule, notification of actions on the high seas" which are a hazard to military and civilian ships and military aircraft. The notices currently given only specify projected impact areas of the launch vehicle and associated debris; they do not specify launch point or area, the type of vehicle, or the purpose of the launch. U.S. notices[1] of missile tests and space launches are typically broadcast one week or more prior to launch, and specify a time window (usually of four hours) on one particular day. (Exceptions to this are notices of operational SLBM tests and launches of space reconnaissance vehicles, where notification is from one to three days prior to launch.) Soviet notices are substantially more general, giving only an extended launch window (anywhere from four days to four weeks) and an indication of time. (Soviet practice for shorter windows, however, has usually been to launch at the very beginning of the window.) Apart from differences in the character of the notices themselves, however, there is a fundamental asymmetry between the U.S. and the USSR resulting from differences in launch practices and test range geography in the two countries. While virtually all U.S. ICBM and SLBM tests are to the open ocean, this has been true for only 5-10% of Soviet ICBM tests and slightly over 55% of Soviet SLBM launches. Range location and desired orbit characteristics dictate that essentially no Soviet space launch activity is subject to prior notice, while all U.S. space launches necessitate such notice.

The U.S. and the USSR currently provide notification and basic orbital information on all space launches to the United Nations after they occur, as required by the Convention on Registration of Objects Launched into Outer Space. This multilateral convention, signed in 1975, formalizes the guidelines originally established by the Outer Space Treaty.[2] The Convention requires that the following information be provided: date and territory or location of launch,

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1 For examples of these notices, see Tab A.

2 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and other Celestial Bodies, 1967.

basic orbital parameters (nodal period, inclination, apogee, perigee), and "general function" of the space object.[3] (Neither the U.S. nor the USSR accurately report the "general function" of reconnaissance satellites.) The U.S. currently makes prior announcements of all NASA space launches, which include some launches with unclassified military payloads.

The Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War Between the USA and the USSR, signed in 1971, is another important existing agreement in this area. Under Article IV of this Agreement, each party is to provide notification in advance of "any planned missile launches if such launches will extend beyond its national territory in the direction of the other party." Prior notification of planned missile launches was proposed by the Soviets early in SALT, though similar measures had formed part of earlier U.S. disarmament plans. The initial Soviet proposal called for notification of missile launches beyond the limits of national territories, and of massed takeoffs of aircraft from forward-based airfields and carriers. (In the course of these negotiations, the Soviets also proposed banning flights of nuclear-armed bombers outside of national territory and restricting the patrol areas of missile submarines.) The U.S. complained that this proposal was unbalanced because it would only or primarily affect the U.S., and indicated it could only accept notification of missile launches that extend both beyond national territory and in the direction of the other party. The U.S. also indicated that it did not consider the U.S.-USSR Direct Communications Link (Hot Line) the appropriate channel for notifications of this kind, though no specific understanding was sought regarding the precise content of the notification or the channel of transmission.

Article IV has been understood on both sides to apply to land- rather than sea-based missiles, and it is generally assumed to apply only to ballistic missiles. Whether it can be considered to apply to space launches involving an ICBM-type booster is uncertain. To date, there have been no specific notifications by either side under Article IV. However, it is not entirely clear to what extent if any the Soviets regard the routine notices of closure of ocean areas discussed above as fulfilling the Article IV requirement. While all missile test launches (and military and civilian space launches) by the U.S. extend beyond U.S. national territory, all such launches avoid azimuths that could be construed as "in the direction of" the Soviet Union. Relatively few Soviet ICBM tests extend beyond Soviet territory; however, some of those that do - and the large number of tests intended to impact on the Kamchatka

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[3] For examples of these notices, see Tab B.

Peninsula - follow azimuths that could be construed to be "in the direction of" certain U.S. territory in the Pacific, including Hawaii.[4] Precisely what obligations the Soviets have under Article IV to notify of such launches remains unclear. In 1974, an ICBM test launch that seems to have been intended to impact in the Kamchatka area malfunctioned in flight and finally impacted some 500 miles from Midway Island. The U.S. took the opportunity to sound out the Soviets on this matter in the Standing Consultative Commission, presenting the flight as a possible violation of the notification provision of Article IV. The Soviets did not admit that a malfunction had occured, but proposed instead to "clarify" the meaning of Article IV so as to cover only launches in the direction of the "continental part" of the territory of the other side. This was rejected by the U.S. A provision for immediate notification of an "unsuccessful" or malfunctioning launch of an unarmed missile was subsequently included in the Protocol on Immediate Notification;[5] this calls for notification where the trajectory of the missile extends beyond national territory in a direction that could be misinterpreted (in the judgment of the party launching the missile) by the other side. However, the ambiguity concerning the meaning of "in the direction of the other party" in Article IV itself remains unresolved.

III. OBJECTIVES AND APPROACH

A. U.S.

1. General. The utility of measures like test launch notification has tended to be viewed by most in the U.S. (as well as by the Soviets) in close connection with the Agreement on Measures and its primary objective of reducing the risk of nuclear war. At the same time, it is clear that missile launch notification as required by Article

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4 About 85% of Soviet ICBM tests in the past decade have impacted on Kamchatka or in the Pacific; the comparable figure for SLBM tests is about 37%. Soviet space launches have avoided azimuths "in the direction of" the U.S.

5 Protocol on the Use of Immediate Notification in Implementation of the Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War..., signed in September 1976.

IV has a less direct and immediate relation to the risk of nuclear war than the other provisions of the Agreement on Measures, and serves (at least under non-crisis circumstances) the largely political purpose of reduction of tension and mutual confidence-building. An important aspect of this objective is to encourage information or data exchange with the Soviets as a way of breaking down Soviet habits of secrecy and the building of trust. This argues for U.S. insistence on specific government-to-government notification even where (as in the case of current range safety notices) the substance of the information is already being exchanged. A collateral effect of test launch notification relates to possible intelligence benefits.[6]

There has been some disagreement as to whether the U.S. approach to the Soviets in the SCC should be limited to ICBM test launch notification or should encompass other forms of missile launch notification. As discussed above, some prior notification of SLBM tests (by the U.S. and USSR) and space launches (by the U.S.) is currently given in the form of warning notices to mariners and airmen. Some believe that presenting ICBM notification as part of a larger initiative encompassing SLBM and space launch notification would be a logical step falling within the general scope of the President's remarks, would better serve U.S. risk-of-war and confidence-building objectives without compromising U.S. security interests, and might make ICBM notification more acceptable to the Soviets by putting it in the context of other measures (primarily SLBM test launch notification) which might not appear to favor the U.S. to the same degree. JCS and OSD representatives believe that, while there may be some marginal political benefit, more specific notification of SLBM launches would jeopardize the survivability of SSBN forces.[7] They further believe that a U.S. initiative involving only ICBM launches would be in the mutual interest of both parties as it would contribute to confidence building, apply equally to both sides, be negotiable, and avoid the complexities and asymmetries of a more comprehensive proposal. Notification of launches of space vehicles, SLBMs, and MR/IRBMs are discussed in Section IV below as possible elements of a U.S. proposal on test launch notification.

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6 An analysis of the intelligence aspects of test launch notification by CIA has been made and is available separately.

7 They believe that the risk of detection of SSBNs would increase substantially by narrowing the geographic region over which ASW search must take place and by allowing intelligence collection of ASW parameters permitting optimization of Soviet search techniques.

The benefits for the U.S. of any prior notification agreement must be balanced against its liabilities and potential hazards. Perhaps most serious is the danger that over time Soviet notifications would lead the U.S. to relax and to assume that all launches properly notified are test and training launches rather than an attack which they could be. Conceivably, the Soviets could employ notification as a way to mislead the U.S., either by using it as a cover for a selective surprise attack or as a way of diverting U.S. warning systems or intelligence collectors from other activities. It is also necessary to give consideration to the alarm potential of a launch from a Soviet operational launcher or SSBN of which the Soviets had failed to give notification that was required and expected. Less dramatic but perhaps of more immediate concern to the U.S. (as well as to the Soviet Union) are the problems of cost and inconvenience which notification could create for missile test and space programs. Approximately 35% of U.S. operational ICBM test launches are not carried out as initially scheduled (largely on account of range sensor problems and weather conditions in the impact area), and the percentage is even higher with respect to developmental launches. Therefore, because of possible adverse impacts on data acquisition and test costs, the provisions of an agreement must assure flexibility in rescheduling delayed launches. A disadvantage of provisions and procedures which give such flexibility could be that they might encourage over-notification (notification in cases where no launch is intended) - just as the Soviets currently over-notify Turkey of passage of ships through the Dardanelles and Bosporus Straits under the Montreux Convention. Measures to minimize these problems are discussed in Section V below.

2. ICBM Test Launches. ICBM test launches could give rise to misperceptions and increase the danger of nuclear war under certain circumstances, particularly in a time of severe tension or crisis involving the U.S. and the USSR. Possibilities of misperception exist primarily on the U.S. side. Under current U.S. practices, the Soviets know the scheduled time of U.S. ICBM test launches well in advance (because of routine hazard notifications and open intelligence indicators), and the U.S. has procedures for restricting testing during times of tension; but certain Soviet ICBM tests are not known to the U.S. in advance and the Soviets have made no apparent effort to respect U.S. sensitivity to missile testing during periods of tension. The limited extent of the notification required by Article IV of the Measures Agreement was justified by the U.S. at the time of negotiation on the grounds that launches not

covered would not involve a risk of nuclear war. The primary concern of the U.S., however, was to avoid an agreement that would impose more obligations on the U.S. than on the Soviets, as would have been the case if testing beyond national territory had been the only criterion for notification. Yet direction of launch and intended impact area are not the only criteria determining whether a test could create potentially dangerous misperceptions. Perhaps equally important is the point of origin of the launch. While the U.S. presently tests ICBMs from a single test range, the Soviets test both from missile test ranges and from operational ICBM silo fields.[8] Since U.S. warning systems cannot initially distinguish between test launches (of unarmed missiles) and actual launches (of armed missiles) from operational ICBM silos,[9] and since intelligence on these test launches is rarely available in advance, Soviet launches of this kind regularly create a certain degree of concern in the U.S. and are susceptible to misinterpretation.

One objective of the U.S., then, as the President has indicated, would be to minimize the possibility of misperception of Soviet test launches from operational ICBM launchers. Notification of such launches would not substitute for unilateral warning intelligence or for ordinary vigilance, but it would have some military value as an aid to interpretation of events detected by other means. Also of some intelligence and perhaps military value, though secondary in importance, would be notification of launches beyond the national territory of the parties.[10] Soviet ICBM tests

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8 Slightly over 15% of all Soviet ICBM tests in the last ten years have been from operational silos, but this includes an abnormally large number of SS-11 firings for purposes of silo depletion prior to SS-11 silo conversion. We cannot be sure of the precise purpose of the other operational firings and therefore whether additional launches from operational launchers would be required to meet Soviet test objectives, but we would expect the proportion of such launches to be significantly less than 15% in most future years.

9 It should be pointed out that some ICBM silos at Soviet test ranges are believed to be operational (equipped with armed missiles). It is possible, then, that an armed missile could be launched from a Soviet test range.

10 Roughly 5% of all launches of newer Soviet systems have been extended range tests to the Pacific.

to the Pacific continue to have a potential for creating incidents, and the uncertainty that currently exists regarding the interpretation of Article IV of the Agreement on Measures to some degree enhances this potential.

A second objective of ICBM test launch notification for the U.S. would be to encourage the further expansion of U.S./Soviet "confidence-building measures" as a means of enhancing the viability of arms control agreements and improving relations at the political level. Notification of ICBM launches would constitute an important precedent for further such measures, and it would have the particular advantage of accustoming the Soviets to information or data exchange for confidence-building and political purposes. It would thus both support and be consistent with U.S. initiatives for data exchange in other arms control areas such as SALT and MBFR.

A collateral effect of test launch notification would be the collection of additional intelligence on Soviet ICBM test launches. While the potential contribution of notification to U.S. intelligence would be modest even under optimal conditions, it should be kept in mind that the U.S. makes less effort to conceal preparations for ICBM tests, and provides advance notice for range safety purposes of many more of these tests, than do the Soviets. It would thus stand to gain more intelligence benefits from notification than would the Soviets.

B. Soviet

1. General. The Soviets have always attributed considerable importance to the Agreement on Measures, and may recognize some value in keeping alive a dialogue on risk-of-war issues that is basically independent of SALT and other aspects of U.S./Soviet relations. In the context of the Conference on Security and Cooperation in Europe (CSCE), they have demonstrated a willingness to agree to "confidence-building measures" involving notification of certain military activities that are designed to reduce or forestall East-West tensions. At the same time, the Soviets have always been highly sensitive to security requirements, and are likely to be suspicious of any agreement that trades hard intelligence information for more or less intangible reductions in the risk of war or improvements in mutual trust, particularly when the prospects of acquiring useful information in return are relatively poor. In addition, the Soviets are concerned at what they perceive to

be a concerted effort by the U.S. to use notification and information exchange measures as a way to extract intelligence or to acquire a droit de regard over Soviet military decisions and activities. The general Soviet approach to test launch notification, then, is likely to be cautious and skeptical. The Soviets will probably try to restrict the scope of the discussions to risk-of-war issues and the general framework of the Agreement on Measures, though measures that are essentially confidence-building in nature will probably be acceptable to them if their terms are not perceived as imposing an unequal or overly costly or inconvenient burden on the Soviet Union.

While it does not seem likely that the Soviets will make any dramatic proposals going beyond notification of ICBM launches, this is always a possibility. The Soviets could take such a step from a desire to equalize the advantages which they might perceive ICBM notification as giving the U.S., or perhaps simply for purposes of political "one-upsmanship." Conceivably, for example, the Soviets might reintroduce their proposal to notify of massed takeoffs of aircraft from bases outside national territory (though they might also be more sensitive than in 1970 to discussion of aircraft carriers and forward bases because they too can now be considered to have these capabilities). It is also possible that the Soviets would propose to include notification of SLBM test launches, since they might calculate that exchanging information on SSBNs would present a net intelligence gain for the Soviet Union and would also be politically desirable (since it might appear to be a U.S. concession). Contingency responses to the Soviets' raising massed takeoffs of aircraft and cruise missile launches are discussed in Section VI below.

2. ICBM Test Launches. In response to the U.S. approach in Moscow, the Soviets appeared to take the position that launches extending beyond national territory are already sufficiently notified by the Soviet Union through routine notices of closure of ocean areas, and that while launches within national territory do not generally require notification because of U.S. familiarity with Soviet test practices, the Soviet Union would be willing to consider such notification in individual cases. What the Soviets appeared to have in mind is an agreement on launches within national territory that would parallel the language covering "unsuccessful" launch of a missile ("Situation Four") in the Protocol on Immediate Notifications signed in September 1976. Such an agreement would presumably call for notification of launches when, "in the judgment of the party on

whose side the missile launch occured," the direction or other circumstances of launch could be misinterpreted by the other party and when notification is considered warranted "by the interests of averting the risk of outbreak of nuclear war." In other words, this would leave it entirely to Soviet discretion to notify the U.S. of any launches within Soviet territory.

The Soviets have previously proposed notification of ICBM test launches that extend beyond the boundaries of national territory, and would probably be ready to agree to more formal and specific notification of these launches. The position taken in Moscow - that the Soviets already provide adequate notification - is probably tactical in nature and intended to ensure that the detailed provisions of an eventual agreement will be based as much as possible on the relatively uninformative notices that are currently being exchanged. The Soviets can be expected to maintain such a position regarding all notification.

Whether the Soviets would agree to notification of all ICBM test launches is unclear, but cannot be ruled out entirely. Conceivably, they might link acceptance of such notification to U.S. acceptance of some other proposal perceived as more favorable to themselves. The main liability of comprehensive ICBM notification from the Soviet point of view would be that it would impact only on the Soviets with regard to notification of launches within national territory (including those where the risk of misperception is minimal), and thus could appear to give the U.S. (but not the Soviet Union) a droit de regard over internal military activities of the other side. In addition, the Soviets may be sensitive for security reasons to notification of test launches of the SS-X-16 ICBM, since they have gone to unusual lengths to conceal activities, associated with tests of this missile; and they may fear U.S. demands for notification of launches of the related SS-X-20 mobile IRBM.

IV. ISSUES FOR DECISION: POSSIBLE NOTIFICATION OF SPACE, SLBM AND MR/IRBM LAUNCHES

Whether for tactical reasons or because notification of other kinds of launch events could serve U.S. objectives, the U.S. may want to broaden its test launch notification proposal to include, in addition to ICBMs, one or more of the following: space vehicles, submarine launched ballistic missiles (SLBMs), and medium and intermediate range land-based ballistic missiles (MR/IRBMs). The advantages and disadvantages of specific prior notification in each of these areas, and possible benefits or liabilities of discussing them with the Soviets, will be discussed briefly.

A. Space Launches

1. The Issue. Whether the U.S. should propose specific prior notification of space launches.

2. Discussion. The question of notification of space launches arises mutually in the context of ICBM test launch notification, since some space launches employ an ICBM type booster (the Soviet SL-11 space launch vehicle is essentially an SS-9 ICBM). However, there are differing views regarding the suitability of including space launches in the U.S. proposal. Some believe there are distinct advantages to inclusion of such launches while others contend that the disadvantages far outweigh any benefits to be gained. Both of these views along with the supporting arguments are described below in a pro/con format.

Pros

-- An advantage of space launch notification would be its contribution to confidence building through increased exchange of information.

-- Space launch notification will contribute to reducing misperceptions that could create a risk of war. At present, Soviet space launches are on occasion mistaken for ICBM launches by U.S. warning systems for a short period (four to five minutes) after launch. Future changes in Soviet practices could increase the frequency and seriousness of such occurrences. Though the Soviets do not currently launch space vehicles in the direction of the U.S., they have incentives to launch on such azimuths and although it is unlikely, they might do so in the future; since these launches could come from test ranges where ICBMs are operationally deployed and would have trajectories closely resembling ICBMs, they could seriously alarm U.S. warning systems.[11]

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11 Soviet launches into sun-synchronous polar orbits for reconnaissance purposes could pass over the U.S. on the first revolution. Launches by the short route over the Arctic would be particularly alarming and have so far been avoided by the Soviets, but a recent southerly launch passed over parts of U.S. territory on the first revolution. (The U.S. does not now launch in the direction of the USSR, but it is possible that future launches with the STS (space shuttle) may pass over the Western USSR.)

-- Space launch notification will further contribute to reduced risk of war by affording the opportunity to assess the pending launch, if possible, in the context of the threat to satellites of the other side.

-- Proposing space launch notification to the Soviets would provide the U.S. an opportunity to convey to the Soviet its potential concern regarding possible misinterpretation of space launches - something that could be of value regardless of Soviet reaction to such a provision.

-- Such a proposal may or may not be acceptable to the Soviets, but in any case it would give the U.S. added negotiating room in pressing for, e.g., more comprehensive ICBM notification.

-- Such notification could provide the U.S. with information affording modest opportunities for intelligence collection against Soviet space systems. The Soviets too may derive some intelligence benefit from space launch notification but the U.S. would probably have the net advantage, since the Soviets already know a great deal about most U.S. space programs and since the U.S. is providing at least 24 hours advance notice of essentially all orbital space launches under the U.S./Soviet Agreement on Prevention of Incidents On and Over the High Seas (1972) and a Protocol to that Agreement (1973).[12,13]

-- It will eliminate any possibility of an aborted space launch being misinterpreted as an ICBM

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12 This treaty and the associated protocol are hereinafter collectively referred to as the "Incidents Agreement."

13 These notices do not contain information that specifically identifies an impending launch to be a space launch. In fact, in the case of U.S. surveillance and other military space systems an effort is made to conceal the fact that a launch will occur as well as to minimize the interval between the notice and the launch (usually from one to three days). However, the nature of the notices together with readily available collateral information probably allows the Soviets in most cases to identify imminent U.S. space launches with high confidence.

launch for which prior notification had not been given. This situation could result in disagreements as to whether notification should have been given for a specific launch.

It is recognized that for some time it has been U.S. policy not to seek international agreement on prior notification of space launches.[14] This policy has reflected U.S. concern over possible compromise of U.S. military space programs. Analysis of this concern in the light of current experience indicates that an agreement providing for specific prior notification of space launches could be devised that would reveal little information on U.S. military space systems not already known to the Soviets. In particular, little immediate impact on U.S. military surveillance and space intelligence activities is expected from such an agreement. Possible risks associated with intelligence losses could be minimized by framing the notification in such a way that: (1) purpose of the launch and orbital characteristics are not given; and (2) notification is not given earlier than 24 hours in advance. This in fact is the level of detail being provided currently by the U.S. under the 1972 U.S./Soviet "Incidents Agreement."

Cons

-- Such a proposal could unnecessarily complicate the negotiations by raising sensitive security issues that the Soviets might not be prepared to deal with.

-- Including space launches would result in the inclusion of missile systems in the U.S. proposal which are not currently part of the SALT forum.

-- The JCS and OSD representatives believe that the risks associated with specific prior notification of space launches remain great enough that any additional notification beyond that presently required or any discussion of such notification with the Soviets is undesirable.

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14 NSC Action 2454, July 10, 1962, specifies that the U.S. should not, "in presenting more detailed proposals for a separate group of measures to 'reduce the risks of war,' include advance notification of space launchings."

-- They believe that there are significant gaps in Soviet knowledge of U.S. systems that could be filled by such notification, that the Soviets would enjoy the net gain or at least equal gain, and that other benefits would not be sufficient to offset these liabilities.

-- Sufficiently detailed notification of space launches will degrade U.S. space surveillance capability. The JCS and OSD representatives believe that the risks associated with prior notification of space launches remain great enough that any additional notification beyond that presently required or any discussion of such notification with the Soviets is imprudent.

-- The U.S. could very well find itself under pressure to include more detail in the notification process than dictated by either prudence or current practice. This situation could result in the degradation of the U.S. space surveillance capability.

The general view of both the JCS and OSD representatives is that the proper place to address the issue of space launch notification is the comprehensive review of U.S. space policy (PRM-23) that is currently underway.

B. SLBMs

1. The Issue. Whether the U.S. should propose specific prior notification of SLBM test launches.

2. Discussion. The question of prior notification of SLBM test launches is alsc related to the issue of ICBM launch notification, since SLBM notification would have essentially similar objectives. Most of the recent generation of SLBMs (Trident, SS-N-8, SS-NX-18, with the SS-NX-17 being the only exception) have the capability to hit the homeland of the other side even when launched in home waters, and misperception of SLBM test launches could create a risk of war comparable to that created by ICBM test launches. While U.S. SLBM test launches are in directions entirely away from the USSR (flight azimuths are southerly and southeasterly in the Atlantic and southwesterly in the Pacific), Soviet SLBM tests to extended ranges in the Pacific and to Kamchatka have trajectories that could take them "in the direction of" U.S. territory. Moreover, the vast majority of SLBM launches on both sides occur from

operational submarine launch tubes, so that test launches cannot be distinguished from actual launches of armed SLBMs except through inference based on the launch area and other factors.

On the other hand, the JCS and OSD representatives believe there is a substantial increase in risk to the survivability of SSBNs inherent in the concept of SLBM test launch notification. While SLBM development tests and demonstration and shakedown (DASO) tests are currently unclassified and subject to the same kind of advance notice as ICBM tests, SLBM operational and follow-on tests (OT/FOT) are classified and range safety notices relating to impact areas are released 24 hours prior to launch. This precaution is taken in order to avoid compromising the position of the SSBN launching the missile. Any further notification concerning these tests that aided the Soviets in locating the SSBN could result in enhancing Soviet capabilities for SSBN surveillance and antisubmarine warfare (ASW).

An additional consideration is that U.S. SSBNs occasionally return to their alert patrol areas following test launches; so that disclosure of launch location could create an added risk of covert surveillance and tails by Soviet SSNs that would jeopardize the security of these areas. Furthermore, because most Soviet SSBNs must currently transit surveillable choke points enroute to deployment areas,[15] while most U.S. SSBNs do not; therefore, more complete notification would be of greater value to the Soviets than to the U.S.

Some believe that these risks could be minimized by framing an SLBM notification provision in such a way that: (1) notification of launch location is not given or is given only for a very broad area; and (2) notification is not given longer in advance than 24 hours, which is the current U.S. practice under the "Incidents Agreement." Others believe, however, that the inclusion of SLBM launch notification in the U.S. proposal or any discussion of such notification with the Soviets is imprudent and would pose a grave threat to the survivability of the triad concept of deterrence. A summary of the pros and cons of including SLBM launch notification in the U.S. proposal is provided below:

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15 Choke points include both the GIUK Gap and the Mediterranean Sea. However, the requirement to transit choke points may diminish as the longer range SLBMs enter the Soviet inventory in larger numbers.

Pros

-- It will contribute to confidence building through increased exchange of information.

-- Prior notification of SLBM launches from operational launch tubes will reduce misperceptions and contribute to reduced risk of accidental war.

-- When coupled with ICBMs and space launches, it allows for a straight-forward notification of all launches, which formalizes the exchange of information which for the most part is already available to both sides by other agreements or by National Technical Means.

-- Some believe there would be no additional security risks to U.S. systems since the U.S. is already providing at least 24 hour prior notification of essentially all U.S. SLBM launches under the "Incidents Agreement."

-- Proposing SLBM notification to the Soviets could have the advantage of making the U.S. initiative as a whole more acceptable, since it would give the appearance of balancing notification in an area of particular U.S. interest (ICBMs) with notification in an area of particular interest to the USSR (SLBMs).

-- Including SLBM test launch notification along with ICBMs would embrace the relevant missile systems covered under SALT.

Cons

-- It could unnecessarily complicate the negotiations at an early stage by raising sensitive security issues that the Soviets might not be prepared to deal with. Complications could also be created for the U.S. position if it were decided to have different and less precise notification for SLBMs than for ICBMs. This could create pressure on the U.S. to settle for less with respect to ICBMs.

-- OSD and JCS representatives believe that no conceivable political benefit could compensate for the potential increased risk to survivability

of SSBN forces. They believe such risk is inherent in discussing this matter with the Soviets. State and ACDA representatives believe that SSBN survivability would not be affected by a generalized notification since the U.S. is already providing 24-hour notification of broad impact areas of SLBM missile elements.

-- They also believe that the U.S. could very well find itself under pressure in the negotiating process to make the notification of SLBM test launches more specific than is presently required (e.g., precise launch location, launch time, etc.) Such additional information might enhance Soviet ASW capabilities and therefore poses unacceptable risks to U.S. strategic deterrence.

-- Formalizing the prior notification procedure beyond the scope of ICBMs could tend to limit future U.S. policy options of cancelling SLBM launches under conditions of launch site encroachment by Soviet naval vessels.

-- Restricting prior notification to ICBM launches will permit a rather specific exchange of information concerning the planned launch event (i.e., the notice can go out a significant period in advance of the launch; it can contain details of the specific launch locations and time of launch, launch azimuth, etc.) Extending the scope to include SLBM launches will require that the notice include only information of a general nature.

C. MR/IRBMs

1. The Issue. Whether the U.S. should propose prior notification of MRBM and IRBM test launches (or of those MRBM and IRBM test launches originating at or near operational ICBM deployment areas).

2. Discussion. Testing of shorter range ballistic missiles has some relevance to ICBM test launch notification, since such tests could be mistaken for ICBM launches under certain circumstances. Soviet ICBMs and MR/IRBMs

are currently deployed together at one missile complex. The Soviet SS-X-20 mobile IRBM has been tested several times from an operational ICBM complex, and will probably be deployed out of at least two other similar complexes. Moreover, even if the SS-X-20 is tested in areas remote from ICBM silo fields it could be mistaken for the SS-X-16 mobile ICBM, which it resembles closely. Including such launches in a missile test launch notification agreement would serve U.S. risk-of-war and confidence-building objectives. The U.S. could seek notification either of all MR/IRBM launches, or of those launches originating at or near operational ICBM deployment areas. (The phrase "deployment areas" could be intended to cover possible mobile ICBM deployments.)

Proposing notification of MR/IRBM test launches would have the advantage of underlining the seriousness of the U.S. concern with ICBM testing. While any such notification would be difficult to negotiate because of its one-sided impact on the USSR, the more restricted form could more easily be justified as a risk-of-war measure and could conceivably be acceptable to the Soviets. Alternatively, the U.S. could keep a proposal of this kind in reserve as a possible counter to Soviet proposals involving, for example, massed aircraft takeoffs.

V. ISSUES FOR DECISION: ICBM NOTIFICATION

The following issues will need to be resolved in order to present to the Soviets a detailed proposal on ICBM test launch notification: (a) type of launch; (b) launch window; (c) period in advance of launch; (d) location of launch; (e) intended impact area; (f) additional launch information; (g) over-notification; (h) type and channel of notification.

A. Type of ICBM Launch Covered.

1. The Issue. Whether the U.S. should seek notification of all ICBM launches, or restrict notification to cover launches from operational ICBM launchers or launches either from operational ICBM launchers or beyond national territory.

2. Options

a. All ICBM Launches. This most closely reflects what the President has actually said, and would best promote the information exchange and confidence-building objective of the U.S. It would be symmetrical in the sense

that it would require notification by the U.S. as well as by the Soviet Union. However, given current test practices on each side and the fact that many Soviet tests take place entirely within Soviet territory, the U.S. would have the net intelligence advantage, and the Soviets would no doubt perceive an overall asymmetry in the U.S. favor. A requirement to notify of SS-X-16 test launches could also be a complicating factor for the Soviets.

b. Launches from Operational ICBM Launchers. Notification of these launches would provide the U.S. significant information not otherwise available. Since no U.S. notifications whatever would be required under current U.S. practices, it could be viewed by the Soviets as manifestly asymmetrical in the U.S. favor. However, notification of such launches would be less sensitive from an intelligence standpoint as well as less inconvenient for the Soviets than comprehensive notification. Launches from operational ICBM launchers are usually of lower intelligence interest than developmental launches from test sites. (They are, for example, usually not telemetered.) They represent a relatively low proportion of all Soviet launches, and are less likely to experience cancellation or delays than developmental launches (depending on the objectives of the test). Generally, this option would fall within the framework of the Agreement on Measures and could be presented as a risk-of-war measure in the narrow sense (and thus as satisfying Soviet concerns on this score).

Referring to operational ICBM launchers would cover all launches of greatest concern to the U.S., including those from SS-X-16 mobile launchers and those from operational silos at test ranges. Less comprehensive variants of this option would include:

(1) Launches from operational ICBM silos. This would exclude SS-X-16 mobile launchers (and also the SS-7 soft site launchers that are currently being phased out of the Soviet inventory);
(2) Launches from operational ICBM silo fields. This would exclude, in addition to the SS-X-16 (and SS-7), operational silos at test ranges.

c. Launches Either from Operational ICBM Launchers or Beyond National Territory. As compared to option b, the added requirement for notification of launches

extending beyond national territory would, in effect, require the U.S. to notify all its ICBM launches, while only a small additional number of Soviet launches would be covered. Notification of these Soviet launches would, however, have the additional advantage for the U.S. of removing the ambiguity regarding the meaning of "in the direction of the other party" under Article IV of the Agreement on Measures but because of this may be less acceptable to the Soviet Union.

B. Notification of Launch Window

1. The Issue. Whether the U.S. should seek relatively precise (4-6 hours) or relatively imprecise (days or weeks) notification of the intended launch window.

2. Options

a. Precise (4-6 Hours). Very precise notification of time of launch (minutes) would probably be objectionable to the USSR for intelligence reasons and to both sides because of the lack of flexibility it would impose on test launch operations (or the false notification rate it would require). A 4-6 hour launch period would provide maximum flexibility in launch operations on a given day, since most launches are constrained within such a window (4 hours is standard for U.S. ICBM launches) for a variety of operational reasons. At the same time, it is precise enough to provide clear identification of individual launches for warning purposes. It would also have some intelligence value (more for the U.S. than for the Soviets) by permitting the concentration of certain intelligence collectors in the area of launch or impact. Any narrow launch window, however, is likely to be objectionable to the Soviets.

b. Imprecise (Days or Weeks). A launch window of a week or more would reflect current Soviet practice in announcing closure of ocean areas for missile testing, and in some form would presumably be acceptable to them. It would allow for maximum flexibility in launch operations by permitting launches to be slipped over a lengthy period without additional notification being required. A launch window longer than a few days would eliminate most benefits to be gained by greater focusing of intelligence assets, and increasing the period would increase the scope for ambiguity as regards possible multiple launches and notifications. A 2-3 day window might be a possible compromise position if the Soviets hold out for their current practice.

C. Period in Advance of Launch

1. The Issue. The President has suggested that notification might be 24 or 48 hours in advance of launch. The issue is what period the U.S. should propose, and whether a special notification might be desirable under certain circumstances in order to deal with the problem of delayed launch. The problem with delayed launch (e.g., a 24-hour postponement due to weather) comes with assuring the flexibility to reschedule. The objective of pre-notification is not to track these reschedules, but simply to notify an intent to launch.

2. Options

a. Two-Three Weeks. Notification well in advance of launch (with a broad launch window) corresponds to current Soviet practice for launches beyond Soviet territory. Also, it might have certain advantages compared with a shorter notification period. In the event of a notification that aroused concern on the other side (e.g., of a large number of simultaneous firings), it would provide a greater opportunity to attempt to clarify or to protest the notified tests. Further, it could make it more difficult to employ testing of missiles for political purposes (e.g., as a show of resolve in a sudden crisis situation). The impact of such a notification on operational launch requirements would depend primarily on the launch window: if the window were narrow enough (several days or less) to provide some useful warning and intelligence function, massing the window could be extremely inconvenient since it would necessitate a 2-3 week delay in the test program in order to satisfy notification requirements. (But this problem could be alleviated by a special notification of the kind discussed under option "c".)

b. 24-48 Hours. A period of this order would imply a relatively narrow launch window such as 4-6 hours. Twenty-four hours would appear to be the minimum period necessary for ensuring that warning systems and personnel are properly alerted, as well as for bringing additional intelligence collectors to bear on the area of launch or impact. A longer period would be better in these respects, but would have a greater potential impact on operational requirements by impeding the rapid rescheduling of a delayed launch. The primary advantage of this option compared with option "a" is that it minimized the necessity of cancellation

of notified launches and reduces delay in rescheduling due to notification requirements. However, these problems would still be present to some extent. (A special notification as suggested in option "c" could further alleviate them.)

c. Two-Three Weeks or 24-48 Hours with a Special 12-Hour Notification Provision. If a narrow launch window such as 4-6 hours is assumed under either option "a" or option "b", the problem of delayed launch could be alleviated by a special notification that a launch was being rescheduled. This notification could be required to be only 12 hours in advance of the rescheduled launch window, so that a missile not launched in its 4-6 hour window on a given day could be launched during the same window on the day following. The main disadvantage of such a special notification would be the added notification burden. This could be expected to be particularly acute under the 2-3 week option, since the likelihood of cancellation of launch may increase considerably with the length of the pre-launch period.

D. Location of Launch

1. The Issue. Whether the U.S. should seek notification of launch location in a general way (name of test or operational complex) or by some specification of geographical coordinates.

2. Discussion. Because of likely Soviet sensitivity regarding precise information on launch location as well as its relative unimportance for the purposes primarily served by notification, the U.S. should propose notification of launch location only through specifying the name of the test or oprational complex from which the missile is to be launched.

E. Intended Impact Area

1. The Issue. Whether the U.S. should seek notification of the intended impact area of each missile launched, and if so, how the impact area should be specified.

2. Discussion. Specification of impact area would be useful regardless of the type of launch to be notified and of the objectives notification is understood to serve. Assuming that launch location is required, knowledge of intended impact area would give knowledge of the direction of the launch and also of whether or to what extent the launch is expected to be beyond national territory.

Impact areas would need to be identified, however, only in general terms, either by the name of a land area (Kamchatka, Kwajalein) or by the geographical coordinates of an ocean area (which could be as large as the areas currently announced by either side as closed to shipping during test periods).

F. Additional Launch Information

1. The Issue. Whether the U.S. should seek notification of additional information such as direction and purpose of launch and the type of vehicle launched.

2. Discussion. Since direction would be given by launch location and area of impact, special notification of it would be superfluous if both of these notices are obtained. Information on purpose of launch and type of vehicle would be useful to the U.S. (particularly information on the launch vehicle), and would serve U.S. objectives with respect to confidence-building and information exchange. However, such notification would almost certainly be resisted by the Soviets, and proposing it could conceivably arouse Soviet suspicions about other elements of the U.S. proposal and harm overall U.S. objectives. While any Soviet willingness to explore such matters should of course be encouraged, it would probably not be advisable initially to seek more than the essentials of notification.

G. Over-Notification

1. The Issue. Whether the U.S. should seek agreement on a clause prohibiting notification when a launch is not in fact intended by the notifying party.

2. Discussion. Given the possible inconvenience of notification and because of its potential for misleading, the Soviets might decide to notify of many more launches than they actually attempt, just as they currently notify Turkey of many more ship passages under the Montreux Convention than they actually carry out. One way to attempt to solve this problem would be to prohibit notification where a launch is not intended. However, such a prohibition would be difficult to verify, and violations would be virtually impossible to challenge effectively. Some Soviet test launches provide a signature of the intent to launch. However, the Soviets could over-notify this kind of launch and, if challenged, simply claim that a major postponement had occured. Over-notification of operational silo launches could cast doubt on the validity of current intelligence estimates

of Soviet launch reliability and thus might be an attractive option for them. A prohibition of this kind could work to U.S. detriment, because the U.S. can be expected to have a substantial number of reschedules that might not be readily distinguishable from over-notifications. Nevertheless, it might have some restraining effect on the Soviets, and would at least provide a basis for challenging gross misuse of the agreement.

H. Type and Channel of Notification

1. The Issue. Whether the U.S. should seek notification in a public or a private form, and if the latter, whether through regular diplomatic channels or through a special channel such as the U.S./Soviet Direct Communications Line (Hot Line).

2. Discussion. A public form of notification (such as Soviet TASS announcements) would sharply limit the scope and precision of the important provisions of a notification agreement, primarily because of likely Soviet sensitivities. It could also conflict with troop training requirements for operational launches. The U.S. should make clear from the outset that the notification of interest to it is specific mutual notification of governments rather than any form of public announcement. As regards possible channels, it is recommended that regular diplomatic channels be used rather than the Hot Line, which should be reserved for emergency communication at the NCA level. However, it might be advisable to suggest some special arrangement to ensure the timely transmission and routing of notification, particularly under a 12-hour option.

VI. CONTINGENCY RESPONSES

A. Cruise Missile Launches. Should the Soviets raise the subject of prior notification of cruise missile test launches, the following points could be made. Cruise missile launches differ from ballistic missile launches in that the launch of a cruise missile for training or development purposes does not represent a pre-emptive threat and would not ordinarily be noted by the warning systems of the other side; hence the value of cruise missile notification for reducing the risk of war would be minimal. The resemblance of cruise missiles to unmanned reconnaissance vehicles, the fact that each side deploys a wide variety of air to surface weapons that are technically cruise missiles (e.g., SRAM), and the possible intelligence value

in notification of cruise missile flight tests, introduce complications which would make detailed discussion of this subject undesirable in the test launch notification context.

B. Massed Aircraft Takeoffs. Proposals for prior notification of massed takeoffs of aircraft have been suggested in general terms by the Soviets in the past, and it is conceivable that they would table some version of these proposals again. Should they do so, it should be pointed out that notification of aircraft launches is not appropriate to the context of the present discussions since they do not represent a pre-emptive threat, that notification of heavy bomber takeoffs (or forward-based aircraft takeoffs, as proposed by the Soviets during SALT I) would impact disproportionately on the U.S., and that notification of takeoffs of aircraft capable of being used in conventional warfare would be an unacceptable constraint on operational flexibility.

U.S. heavy bombers no longer regularly fly airborne alert, and the SAC alert force is not launched unless there is specific reason to believe the U.S. is under imminent attack. However, airborne alert and similar alternatives remain as possible options for the U.S. that could be adversely affected by a prior notification provision.

Notifications of Actions on the High Seas Which are a Hazard to Military and Civilian Ships and Aircraft

This Tab contains examples of the messages provided to mariners alerting them of possible hazardous conditions on the high seas resulting from U.S. missile tests.

Background. TWX notification of an impending missile test is provided to the Defense Mapping Agency Hydrographic Center (DMAHC) by the national test range where the test is to take place (e.g., the Eastern Test Range at Patrick AFB or the Western Test Range at Vandenberg AFB). This notification specifies the date and the time interval when the event can be expected to take place and identifies hazardous ocean regions in effect during the event interval. DMAHC subsequently transmits this information to all mariners at sea by one of two different channels of communication - the Radio Navigational Warning System or the Long Range Navigational Broadcast System.

Radio Navigational Warning System. The Radio Navigational Warning System is a worldwide navigational broadcast warning system, utilizing 16 long range warning areas (NAVAREAS I through XVI). Member nations of the International Maritime Consultants Organization serve as specific Area Coordinators and are responsible for assimilating information from various sources within the NAVAREA and formulating and issuing appropriate NAVAREA warnings. The U.S. is the area coordinator for both NAVAREA IV (includes North America eastward to 40° W) and NAVAREA XII (extends westward from North America to the International Date Line). Messages going out on this system are in International Morse Code and are referred to as NAVAREA IV or NAVAREA XII messages.

Long Range Navigational Broadcast System. The Long Range Navigational Broadcast System predates the Radio Navigational Warning System described above. It is a U.S. system designed to cover the entire Atlantic and Pacific Ocean areas. It is obviously much broader in coverage than either NAVAREA IV (Atlantic) or NAVAREA XII (Pacific) noted above. A long range navigational broadcast message going out into the Atlantic is referred to as a HYDROLANT, a similar message in the Pacific area is called a HYDROPAC.

When hazardous operations are contained within either NAVAREA IV or XII, DMAHC simply transmits the appropriate

NAVAREA message. If the hazardous area falls outside either of these areas, then they transmit either a HYDROPAC or HYDROLANT message.

Examples. Three recent DMAHC warning notifications associated with U.S. missile testing are contained on the following pages. A description of each of these items follows:

Item 1. TWX notification of an impending missile test and the associated hazardous regions provided to DMAHC by the Space and Missile Test and Evaluation Center at Vandenberg AFB (Western Test Range).

Item 2. The NAVAREA XII message corresponding to Item 1 put out by DMAHC over the Radio Navigational Warning System. This message identifies a missile shot extending over 3800 nm to the area near Kwajalein Island. Three specific regions are identified where missile components may impact the ocean surface.

Item 3. A HYDROLANT message indicating a long range missile shot will take place from the Eastern Test Range between 1400 hours on 28 April to 0001Z hours on 29 April 1977. The range of this shot is over 5500 nm and vie specific ocean regions are identified along the trajectory where components may strike the water.

Item 4. A NAVAREA IV message concerning a TRIDENT missile development test to be launched from the Eastern Test Range. The launch window is given as 1500Z to 2400Z hours on 28 March 1977. Again, five specific impact areas are identified along the trajectory which extends over 4400 nm to the ocean region near Ascension Island in the South Atlantic.

CZCRJA882 DATE RECD 27 FEB 77 LAB
OTTUZYUW RUWJSLC0032 0580442-UUUU-RUEBJRB.
ZNR UUUUU
0 270035Z FEB 77
FM HQ SAMTEC VAFB CA/ROOS
TO RUEBJRB/DMAHC WASH DC
RUWJNJA/CCGD ELEVEN LBEACH CA
RUWMHIA/CCGD TWELVE SFRAN CA
RUHHAGA/CCGD FOURTEEN HONO HI
INFO RHAPSPH/COMSUBPAC PEARL HARBOR HI
RUWDLAA/COMSUBTRAGRU WESTCOAST SDIEGO CA
RUWJAHA/COMPACMISTENSTGEN PT MUGU CA/3200-3
ZEB/ROS/SAMTEC VAFB CA/ROSO/ROSF
ZEN/RO/SAMTEC VAFB CA/ROP (CHERRY)
ZEN/ROOC/SAMTEC VAFB CA
ZEN/OCS/FEC VAFB CA
ZEN/OCCI/FEC VAFB CA/IC210
BT
UNCLAS
1. THE SPACE AND MISSILE TEST CENTER ADVISES THAT HAZARDOUS OPERATION 2404 WILL BE CONDUCTED FROM SURFACE TO UNLIMITED ALTITUDES DURING THE PERIOD FROM 020800Z to 021245Z MAR.
A. AREA ENCLOSED BY THE FOLLOWING COORDINATES:

PAGE 2 RUWJSLC0032 UNCLAS
(1) 34 DEG 34 MIN N, 125 DEG 57 MIN W
(2) 35 DEG 00 MIN N, 121 DEG 32 MIN W
(3) 34 DEG 38 MIN N, 121 DEG 30 MIN W
(4) 34 DEG 13 MIN N, 125 DEG 53 MIN W
B. AREA ENCLOSED BY THE FOLLOWING COORDINATES:
(1) 33 DEG 09 MIN N, 135 DEG 49 MIN W
(2) 33 DEG 19 MIN N, 134 DEG 56 MIN W
(3) 32 DEG 49 MIN N, 134 DEG 48 MIN W
(4) 32 DEG 39 MIN N, 135 DEG 41 MIN W
C. AREA ENCLOSED BY THE FOLLOWING COORDINATES:
(1) 12 DEG 17 MIN N, 172 DEG 07 MIN E
(2) 12 DEG 34 MIN N, 172 DEG 37 MIN E
(3) 12 DEG 17 MIN N, 172 DEG 47 MIN E
(4) 11 DEG 59 MIN N, 172 DEG 18 MIN E
2. VESSELS ARE REQUESTED TO CIRCUMNAVIGATE THE ABOVE AREAS DURING THE TIMES SPECIFIED.
BT
#0032

ITEM 1

270035Z

RELEASED BY	DRAFTED BY	PHONE EXT NR	PAGE	PAGES
FOR GLENN R BEYOUNG	L MORTSON	31136	02	
DATE: 27 FEB 77	TOR/TOD:	ROUTED BY:	CHECKED BY:	

MESSAGE NR	DATE / TIME GROUP	PRECE-DENCE	FLASH	IMMEDIATE	PRIORITY	ROUTINE
	272052 FEB 77	ACTION		O		
		INFO				

FM DNARC WASHINGTON DC

TO AIG 9280/COMPHIBSRU ONE/USCGC BURTON ISLAND

UNCLAS

NAVAREA XII 237/77(18,19,81). EASTERN AND CENTRAL NORTH PACIFIC. MISSILES.

1. HAZARDOUS OPERATIONS 020800Z TO 021245Z MAR IN AREAS BOUNDED BY:

A. 34-34N 125-57W, 35-00N 121-32W, 34-38N 121-30W, 34-13N 125-53W.

B. 33-09N 135-39W, 33-19N 134-56W, 32-49N 134-48W, 32-39N 135-41W.

C. 12-17N 172-07E, 12-34N 172-37E, 12-17N 172-47E, 11-59N 172-18E.

WIDE BERTH REQUESTED.

2. CANCEL THIS MSG 021345Z MAR.

ITEM 2

AUTH: HQ SAMTEC VAFB 270035Z FEB

DIST: J7X1, 3100.

UNCLASSIFIED

DATE/ TIME GROUP

NAVAL MESSAGE

RELEASED BY	DRAFTED BY	PHONE EXT NR	PAGE	PAGES
FOR GLENN R. DEYOUNG	R. HUIRHEAD	31166	3 OF	3

DATE	TOR/TOD	ROUTED BY	CHECKED BY
23 APRIL 77			

MESSAGE NR	DATE/TIME GROUP	PRECEDENCE	FLASH	IMMEDIATE	PRIORITY	ROUTINE
6522 6523	231302Z APR 77	ACTION			P	
		INFO				

FM DMAHC WASHINGTON DC

TO AIG 4501

UNCLAS

HYDROLANT 381/77(GEN). NORTH AND SOUTH ATLANTIC.MISSILES.

1. HAZARDOUS OPERATIONS 2814002 TO 290001Z APR WITHIN FOLLOWING AREAS:

4 MILES EACH SIDE OF A LINE BETWEEN 28-26N 80-35W AND 28-24N 80-11W.

20 MILES EACH SIDE OF A LINE BETWEEN 28-20N 79-40W AND 28-05N 78-50W.

50 MILES EACH SIDE OF A LINE BETWEEN 23-15N 60-00W AND 21-00N 55-00W.

60 MILES EACH SIDE OF A LINE BETWEEN 27-20N 75-00W AND 26-30N 71-00W.

100 MILES EACH SIDE OF A LINE BETWEEN 02-00S 12-00W AND 14-00S 05-00E.

2. CANCEL THIS MSG 290100Z APR.

AUTH: DET 1 SAMTEC CAPE CANAVERAL 181625Z APR 77. ITEM 3

DIST: NVI1, 3100.

UNCLASSIFIED

DATE/TIME GROUP

RELEASED BY | DRAFTED BY | PHONE EXT NR | PAGE | PAGES

DATE: 25 MAR 77 | TOP SECRET | ROUTED BY | CHECKED BY | OF

MESSAGE NR	DATE / TIME GROUP	PRECEDENCE	FLASH	IMMEDIATE	PRIORITY	ROUTINE
5512	251822Z MAR 77	ACTION			P	
		INFO				

FM DMAHC WASHINGTON DC

TO AIG 362

UNCLAS

NAVAREA IV 824/77(GMN). NORTH AND SOUTH ATLANTIC. MISSILES.

1. CANCEL NAVAREA IV 772/77.

2. HAZARDOUS OPERATIONS 281500Z TO 282400Z MAR; 4 MILES EACH SIDE OF A LINE BETWEEN 28-26N 80-35W AND 28-29N 80-12W.

40 MILES EACH SIDE OF A LINE BETWEEN 28-33N 79-40W AND 28-46N 78-50W.

50 MILES EACH SIDE OF A LINE BETWEEN 28-00N 67-45W AND 29-20N 66-00W.

50 MILES EACH SIDE OF A LINE BETWEEN 25-15N 60-00W AND 24-45N 55-00W.

100 MILES EACH SIDE OF A LINE BETWEEN 02-30S 23-00W AND 08-42S 14-18W.

3. CANCEL THIS MSG 290100Z MAR.

ITEM 4

AUTH: SAMTEC DET I CAPE CAN (TRIDENT 6050) FONCON 25 MAR 77.

DIST: NVIL, 3100.

DTE

UNCLASSIFIED | DATE/ TIME GROUP

Information Furnished in Conformity With the
Convention of Registration of Objects
Launched into Outer Space

The following pages were extracted from the Space Registry. Item 1 contains U.S. space activity for the month of January 1977, identifies objects not previously reported, and lists objects which have recently de-orbited. Item 2 identifies Soviet launch activity for the period 3-30 March 1977.

Declassified in Part - Sanitized Copy Approved for Release 2014/02/12 : CIA-RDP80M00165A002000140010-7

REGISTRATION DATA FOR UNITED STATES SPACE LAUNCHES

The following report supplements the registration data for the United States space launches as of 2400Z 31 January 1977

International designation	Date of launch	Nodal period	Inclination	Apogee (km)	Perigee (km)	General function of space object
New objects in orbit						
1977-005A	28 Jan.	11432.3	2.8	35 962	35 463	Space craft engaged in practical applications and uses of space technology such as weather or communication
1977-005B	28 Jan.	104.3	28.0	1 302	618	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
1977-005C	28 Jan.	633.4	27.0	35 922	184	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
The following objects not previously reported have been identified since the previous report:						
1963-014DE	9 May	162.6	85.1	6 105	885	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
1970-025NK-NN	8 Apr.	323 objects have been identified as having been launched with 1970-025A and B. 319 objects have previously been reported:				Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
1972-058HK-HW	23 Jul.	212 objects have been identified as having been launched with 1972-058A. 200 objects have previously been reported.				Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
1973-086FY-GC	6 Nov.	170 objects have been identified as having been launched with 1973-086A. 165 objects have previously been reported.				Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
1975-004FY-HB	22 Jan.	193 objects have been identified as having been launched with 1975-004A. 165 objects have previously been reported.				Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
1976-038K	30 Apr.	107.1	63.4	1 115	1 072	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
The following object not previously reported was identified since the previous report but was no longer in orbit as of 2400Z on 31 January 1977:						
1966-056AK-CF	24 June					Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects

The following objects were no longer in orbit as of 2400Z on 31 January 1977:

1963-014AM
1963-014CP
1966-056P
1969-082JJ
1969-082JT
1974-101D
1975-004BG
1975-004DC
1975-004DL
1975-004DY

ITEM 1

Table of registration data on artificial earth satellites in the Cosmos and Molniya series launched by the USSR during the period 3 to 30 March 1977

No.	Name of satellite	Purpose of launching	Date of launching	Basic characteristics		
				Perigee (km)	Apogee (km)	Inclination (degrees)
1114	Cosmos-896	Investigation of the upper atmosphere and outer space	3 March 1977	194	216	72.9
1115	Cosmos-897	Investigation of the upper atmosphere and outer space	10 March 1977	182	371	72.9
1116	Cosmos-898	Investigation of the upper atmosphere and outer space	17 March 1977	222	258	81.4
1117	Molniya-1	Operation of the long-range telephone and telegraph communications system in the USSR, transmission of USSR central television programmes to stations in the Orbita network and international co-operation	24 March 1977	484	40,816	62.8
1118	Cosmos-899	Investigation of the upper atmosphere and outer space	25 March 1977	505	552	74.1
1119	Cosmos-900	Investigation of the upper atmosphere and outer space	30 March 1977	460	523	83

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EXECUTIVE SECRETARIAT

Routing Slip

TO:		ACTION	INFO	DATE	INITIAL
1	DCI				
2	DDCI				
3	D/DCI/IC				
4	DDS&T				
5	DDI	✓			
6	DDA				
7	DDO				
8	D/DCI/NI		✓ Summary ONLY		
9	GC				
10	LC				
11	IG				
12	Compt				
13	D/Pers				
14	D/S				
15	DTR				
16	A/DCI/PA				
17	AO/DCI				
18	C/IPS				
19	DCI/SS				
20					
21					
22					
	SUSPENSE _____ Date				

Remarks:

STAT

Executive Secretary

9 Aug

Date

3637 (5-77)